



RE500

Cardioid True Condenser handheld Microphone

- True condenser design
- Handheld vocal microphone
- Cardioid polar pattern
- Transformerless
- Wide dynamic range
- Low noise

Description and Applications

The Electro-Voice RE500 is a cardioid, true-condenser, microphone specifically designed for the demanding environment of live stage performances, but also useful for broadcasting and home recording studios. For stage performances, the RE500 incorporates many innovative design features. To minimize undesirable handling noise, the RE500 has a shock-mounted transducer and a Warm-grip™ handle. To minimize wind and breath noise, the RE500 design merges a three-stage wind and pop filter and a fixed electronic low-cut filter. The filter has a break frequency of 80 Hz to attenuate handling noise and proximity effect but will not interfere with normal voice. The transducer's cardioid polar pattern provides greater gain-before-feedback and performer isolation from background instruments and unwanted noises.

For home recording and broadcast studios, the RE500 has wide dynamic range and low self-noise.

The RE500's frequency response has a continuous presence rise to enhance the sound quality. The excellent transient response and smooth frequency response is gently lifted

above 1,000 Hz and lends an open transparent detail to the recorded sound.

The RE500's transducer is a true, external biased condenser element based on the RE2000 transducer design (most studio recording microphones are true condensers because they have greater sensitivity and stability than an electret element). The diaphragm is ultrathin, gold-sputtered, environmentally stabilized and ultra low-mass. The electrode is a precision cut, single piece, ceramic disc layered with gold. The transducer is biased by an internal dc-to-dc converter to ensure that its sensitivity and performance is not dependent on phantom voltage. The RE500 transducer is cradled in a shock-mount system for mechanical isolation. The RE500's electronics is designed to operate from 12 V dc to 52 V dc phantom power.

The RE500 is small, light, and rugged making it ideal for a variety of applications without being obtrusive.

The RE500 is supplied with the 323S microphone stand clamp and a zippered vinyl storage pouch.

Architectural and Engineering Specifications

The microphone shall be an externally biased, true condenser type with a frequency response of 80 to 18,000 Hz. The microphone shall have a cardioid pattern with a rear response which is typically 15 dB below the front response at 1.0 kHz. The microphone shall have a fixed two-pole high pass filter with a corner frequency of 80 Hz. The microphone shall be phantom powerable with a voltage of 12 V dc to 52 V dc. The microphone shall have an output power level of -39 dB, where 0 dB = 1 milliwatt per pascal, and output shall not be appreciably affected by the following temperature and humidity extremes: -29 to 74 °C (-20 to 165 °F) when relative humidity is 0 to 50%; -29 to 57 °C (-20 to 135 °F) when relative humidity is 0 to 95%. The microphone shall have a nominal, balanced transformerless output impedance of 200 ohms. The microphone shall have a non-reflective black micomate finish.

Dimensions of the body shall be 47 mm (1.84 in.) wide at the transducer and 20 mm (0.80 in.) wide at the shank, and 166 mm (6.52 in.) long. The microphone shall have

RE500 Cardioid, True Condenser handheld Microphone

a built-in connector similar or equivalent to the Switchcraft A3M.

The Electro-Voice RE500 is specified.

Warranty (Limited)

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Mark IV Audio Service or any of its authorized ser-

vice representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Mark IV Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Mark IV Audio Service at 600 Ceeil Street, Buchanan, MI 49107 (800/234/6831 or FAX 616/695/4743). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice Wired Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited War-

ranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, contact the service repair department at: 616/695-6831 or 800/685-2606.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

Specifications subject to change without notice.

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Figure 1—Frequency Response

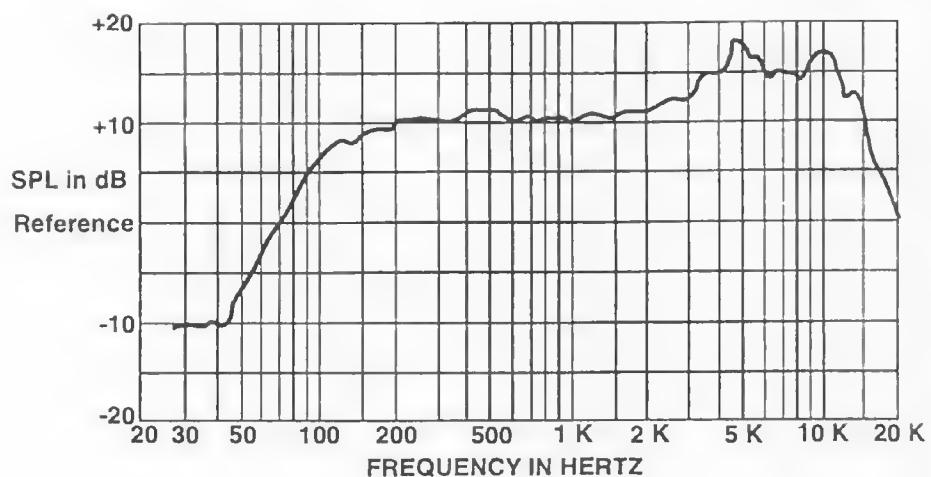


Figure 2—Polar Response

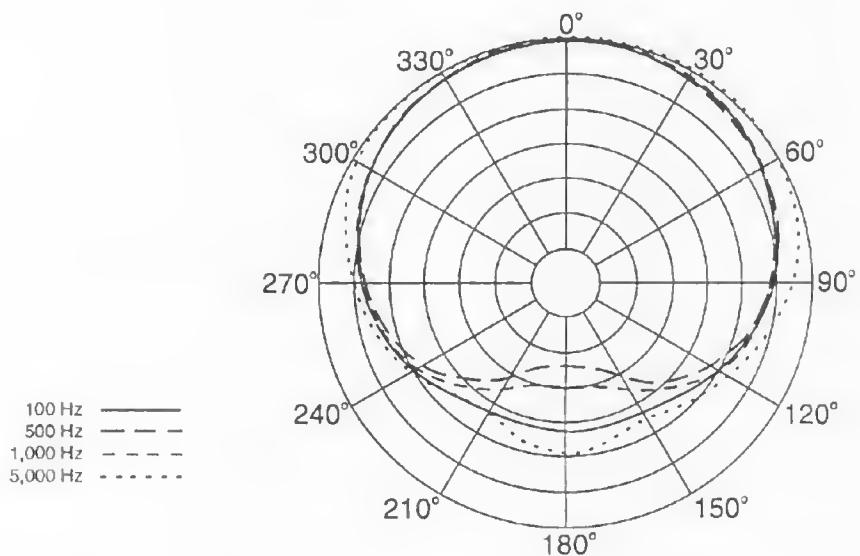
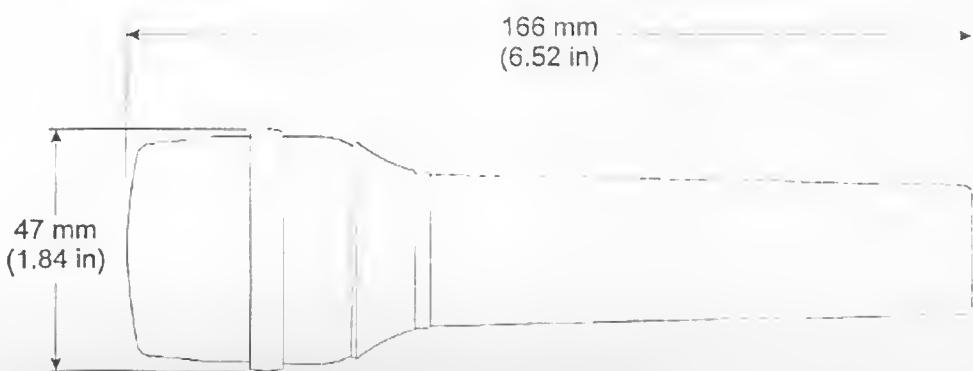


Figure 3—Dimensions



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Specifications

Generating Element:

True condenser (externally biased)

Frequency Response (see Figure 1):

80 - 18,000 Hz

Polar Pattern (see Figure 2):

Cardioid

Sensitivity:

Open Circuit Voltage, 1 kHz:

10 m V/pascal

Power Level, 1 kHz

(0 dB = 1 mW/pascal):

-39 dB

Clipping Level

(1% THD Open Circuit):

148 dB SPL

Equivalent Noise:

20 dB SPL A weighted

Dynamic Range:

128 dB

Output Impedance, 1 kHz:

200 ohms

Power Requirements:

12 - 52 V dc phantom supply

Current Consumption:

3.5 mA

Fixed Low-Frequency Roll-Off,

Corner Frequency:

80 Hz

Slope:

12 dB per octave

Polarity:

A positive pressure on the diaphragm produces a positive voltage on output pin 2 (+) referenced to pin 3 (-)

Finish:

Non-reflective black micromatte finish

Environmental Conditions,

Relative Humidity 0-50%:

-29 to 74 °C (-20 to 165 °F)

Relative Humidity 0-95%:

-29 to 57 °C (-20 to 135 °F)

Accessories Furnished:

323S stand clamp

Zippered vinyl carrying pouch

Dimensions (see Figure 3),

Diameter width at transducer:

47 mm (1.84 in.)

Long:

166 mm (6.52 in.)

Shank:

20 mm (0.80 in.)

Net Weight:

225 grams (8.0 oz)

Shipping Weight:

503 grams (17.7 oz)